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REVIEW OF SEMI-ANNUAL MONITORING REPORT – IRRIGATION SEASON, MARCH – OCTOBER 2005 FOR SACRAMENTO VALLEY WATER QUALITY COALITION

Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff has reviewed the *2005 Semi-Annual Monitoring Report* (Report) submitted on 30 December 2005 by the Sacramento Valley Water Quality Coalition (Coalition) as required by Monitoring and Reporting Program (MRP) Order No. R5-2005-0833. The Report contains findings from the sample period, summary tables of sampling sites and sampling results, copies of field logs and chain of custody forms, and the laboratory results and associated QA/QC documentation. Central Valley Water Board staff also requested that data tables be transmitted electronically, and this occurred on 4 January 2006.

General Comments

The 22 September 2005 letter contained staff's comments on the Coalition's *Annual Monitoring Report*. That letter specified several items that the Coalition should include in future monitoring reports. These items include quality control samples, clear sample site identifications, copies of Chain of Custody documentation, field logs, laboratory data sheets and calibration information, and data summary tables showing site sampling dates, exceedances, and comparisons with water quality objectives.

The Report addressed many of these items, but some were not complete. Incomplete or missing items are discussed below under Specific Comments. We appreciate the continued effort and work involved in preparing and analyzing the data for the Report. The electronic transmittal, which facilitated efficient data entry into the Central Valley Water Board's data management system, also allowed for quicker review of data for evaluation and QA/QC purposes. The Report meets most, but not all, of the requirements of the MRP Order.

Central Valley Water Board staff reviewed about 15% of the submitted laboratory data sheets for QA/QC purposes. Staff will be reviewing and analyzing the remaining laboratory data sheets to ensure that the requirements of the MRP Order are being met.

Specific Comments

The following items are corrections or clarifications the Coalition needs to make to the Report and/or areas that need further work:

1. Table E-3 of Executive Summary – The Report lists sediment samples taken on 7 June 2005 at Big Indian Creek @ Bridge, Stony Creek on Hwy 45 near Rd 24, and Z-Drain – Dixon RCD (includes replicate sample) as exceeding the Basin Plan Narrative Toxicity Objective. The Coalition did not report these exceedances to Central Valley Water Board staff until submitting the Communications Report on 8 August 2005. The Communications Report also states that these samples had statistically significant mortality of greater than 20%. Three other sediment samples (at Pine Creek @ Nord-Gianella Rd., North Canyon Creek, and Cosumnes River @ Twin Cities Road) showed statistically significant mortality that was less than 20%. The MRP Order requires that when results show statistically significant mortality, the site must be resampled and another toxicity test conducted. This resampling did not occur at any of the above sites.
2. Table E-5 of Executive Summary – The Coalition did not report the majority of the items listed in this table (dissolved oxygen or DO, pH, and E Coli) to the Central Valley Water Board staff as exceedances, as required by the MRP Order.
3. Figure 1 (page 5) – Sampling site #9 needs to be shown on the map of Coalition sampling sites. A corrected map is needed showing all the sampling sites.
4. Table 2 (page 6) – The table should list Coon Creek @ Striplin Road as an approved site and Butte Creek @ Gridley Road Bridge as pending.
5. Page 5 – The last paragraph has an error in referencing; the missing reference is “Figure 1.”
6. Table 3 (page 14) – This table should list Shag Slough @ Liberty Island as a replacement site for Toe Drain @ NE corner of Little Holland. To be consistent with Table 5 on page 20, this table also should include the supplemental sites sampled by other parties such as Glenn-Colusa Ag Waiver Monitoring Program (GCAWMP), the Northeastern California Water Association (NECWA), the Plymouth Area Vineyard Erosion Control (PAVEC), and Putah Creek Watershed Group (PCWG).
7. Table 4 (pages 17-18) – The Report’s definition of quantitation limit (QL) is the equivalent of the MRP’s maximum practical quantitative limit (PQL). The QLs for glyphosate and boron are above the PQLs listed in the MRP Order. The Coalition must meet the PQLs listed in the MRP Order.

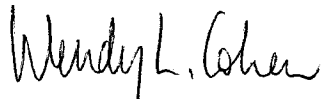
8. Table 4 (pages 17-18) – The list of pesticides is missing oxamyl, lambda cyhalothrin, and cyanazine. These pesticides and associated information should be added to the table.
9. Appendix A -- Field logs are missing for samples taken at McGaugh Slough (June and August 2005). The September 2005 field log for this site has a note “did not sample per Claus”. Table 5, which shows sampling dates for the March-October 2005 period, notes these sites as “dry” for June, August and September, with inadequate flow for sample collection. The field logs should substantiate this observation and state that no sample was taken.
10. Appendix A – NECWA provided no field logs for toxicity test samples taken on 18 April 2005, and none of the NECWA field logs contain flow data (velocity, depth, or distance from bank). There also are discrepancies between sampling dates on the field log and the dates received at the lab for analysis (e.g., 22 June 2005 sample date for P6; lab notes receiving samples on 20 June 2005). Field logs are missing for the following sample locations and dates, although sample results are in Appendix A:
 - P6 in May 2005
 - P6 and FR7 for July 2005
 - P6 for August 2005The missing field logs need to be added to the Report and the discrepancies corrected and/or explained.
11. Appendix B – The NECWA sampling sites are identified incorrectly on the cover page of each binder in Appendix B, Lab Reports & Chain of Custody (COC) forms. The April COC form lists sample site P6 as Pit River @ Canby Bridge (Coalition Site ID PRCAN) and sample site P8 as Pit River @ Pittville (Coalition Site ID PRPIT). The tabulated monitoring results in Appendix C, data in the electronic format, field logs and COC forms confirm this finding as well. The sample site identifications must be consistent and correct throughout the Report.
12. Appendix B – NECWA uses Basic Laboratory for analysis of chemical and physical parameters. There are no QA/QC reports from Basic Laboratory for any analysis, nothing to indicate lab spikes, blanks, duplicates, etc. MRP Order No. R5-2005-0833 and the previous MRP Order No. R5-2003-0826 state that results of samples collected and all lab QC samples and the identification of each analytical sample batch are to be provided to the Regional Board staff (Section 7.1.2 of MRP Order No. R5-2003-0826). The Coalition needs to submit the QA/QC data reports for samples analyzed by Basic Laboratory.
13. Appendix B – Agriculture & Priority Pollutants Laboratories (APPL) uses a subcontract lab, North Coast Laboratories, for analysis of glyphosate and paraquat. NEWCA uses Basic Laboratory for analysis of chemical and physical parameters. The Coalition needs to submit the Quality Assurance Program Plans (QAPPs) for these laboratories to comply with the requirements of the Coalition MRP Plan.

14. Appendix B – The Plymouth Area Vineyards Erosion Control (PAVEC) uses Environmental Micro Analysis for analysis of pesticides and Sequoia Analytical Laboratory for analysis of physical and conventional parameters, nutrients, and metals. Although the PAVEC sites are supplemental sites, the Coalition still needs to adhere to the QA/QC requirements in the MRP Plan to ensure data are complementary to Coalition data. The Coalition needs to submit the QAPPs for these two labs for review and approval.
15. Appendix B – The Coalition did not analyze or report the following pesticides in Coalition laboratory results: dicofol, esfenvalerate, cyanazine, molinate, and thiobencarb. These pesticides are specified in the MRP Order as part of minimum requirements for monitoring. The Coalition needs to notify the laboratories that these pesticides are to be added as part of the suite for surface water analyses.
16. Appendix C – There was no sample taken on 7 September 2005 for Butte Creek @ Gridley Road Bridge. The samples IDs taken from the data tables (electronic format) identify the site to be Colusa Drain @ Maxwell Road. The Report data tables need to be corrected.
17. Appendix C – The tabulated table with toxicity data is missing toxicity tests under the Glenn-Colusa Ag Waiver Monitoring Program (Chico State) and the Pit/Fall River Subwatershed (NECWA). The missing information was available from the Larry Walker Associates website as part of the requested electronic transmittal of data, but the missing data need to be added to Appendix C.
18. Appendix C – The June 2005 sample results from Big Indian Creek (PAVEC site) are in the tabulated table of laboratory results, but there are no lab reports or QA/QC information in Appendix B. There is no COC form for the March 2005 toxicity samples taken at this site. The Coalition needs to add these missing items to the Report.
19. Appendix C – The July toxicity results for the NECWA sites (P6, P8, and FR7) are missing from the summary toxicity table, but are in the electronic data file. The Coalition needs to add these results to the summary table.
20. Appendix C – The Selenastrum toxicity tests for the May and June did not meet the acceptability criteria for the controls (control variability was >20% or <1,000,000 cells/mL). The 3rd Edition of the toxicity test was run, in some cases concurrently, with the 4th Edition method. Use of the 3rd Edition method for the toxicity test is not acceptable. The Coalition is to provide instructions to the lab, and forward a copy to the Central Valley Water Board staff, on how to proceed when acceptability criteria for the Selenastrum toxicity test are not met.

Over the last three months, Central Valley Water Board staff has relayed the substance of the above comments to Ms. Tina Lunt and/or Mr. Suverkropp. To respond to the comments in this letter, please provide a Report Addendum by **12 May 2006**.

The Central Valley Water Board staff has also received the MRP Plan revisions, including proposed monitoring locations for 2006. Preliminary comments on the MRP Plan have also been relayed to Ms. Lunt and Mr. Suverkropp. More details on the comments relating to resampling, upstream sampling for exceedances and the 20 % issue will be in the MRP Plan revision review letter.

If there are any questions regarding this review, contact Margaret Wong at (916) 464-4857, or by email at mawong@waterboards.ca.gov.



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